

Remarks

In the office action, claims 1 and 3-11 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,132,864 issued to Kiriazis et al. ("Kiriazis") in view of U.S. Patent 5,425,970 issued to Lahrman et al. ("Lahrman.") and further in view of U.S. Patent No. 4,810,540 issued to Ellison et al. ("Ellison").

Claims 1 and 3-11 are pending.

Applicants respectfully request reconsideration and withdrawal of the rejections in view of the following remarks.

Rejections under 35 U.S.C. § 103(a):

In the office action, claims 1 and 3-9 were rejected under 35 U.S.C. 103(a) as being unpatentable over a combination of three separate references: Kiriazis et al. in view of Lahrman et al. and further in view Ellison et al.

The three references are discussed in detail in the previous response. Kiriazis et al. and Ellison et al. are both directed to the making of multi-layer paint films to be adhesively applied in their dry state to the end component, such as an automobile body part. Lahrman et al., by contrast, teaches a conventional multi-layer coating process in which each of the layers is applied directly to the end component. Ellison et al. teaches making a multi-layer paint film in reverse order as the others: by first rolling a transparent top layer onto a temporary carrier, then spraying a pigmented layer onto the underside of the transparent top layer, and then by applying an adhesive to the underside of the pigmented layer.

Independent claim 1 recites a process for producing a pigmented paint layer of a dry-paint film for application to a component that includes the steps of:

- applying a first layer to the support material having a first dry layer thickness of between 10 and 50 μm by at least one of knife coating, rolling, pouring or printing;

- applying a second layer having a second dry layer thickness to the first layer by atomization, wherein the first dry layer thickness is greater than the second dry layer thickness by a factor of from 3 to 5; and

- applying a transparent top layer to the second layer.

Applicants respectfully submit that it would not have been obvious to select features from the three separate references and combine them as the Examiner suggests to arrive at the claimed

invention.

First, there would have been no motivation a person of ordinary skill in the art to combine the disparate references. For example, Lahrman et al., is directed to a conventional multi-layer coating process in which each of the layers is applied directly to the end component, while Kiriazis et al. is directed to the making of a multi-layer paint film to be adhesively applied in its dry state to the end component. The Examiner admits that Kiriazis et al. does not teach the thickness of the first layer as being between 10 and 50 μm and does not teach that the thickness of the first layer is a factor of 3 to 5 greater than the second layer. The Examiner then asserts that Lahrman et al. describes these features and that it would have been obvious to modify Kiriazis to use the relative coating thicknesses of Lahrman et al. "to provide a desirable multilayered coating film because ... is known in the art to provide multi-layered coating and therefore would reasonably be expected to effectively provide a multi-layered film to be applied to an automotive panel." See Final Office Action at page 3, and Office Action dated March 23, 2005 at page 3.

However, the motivation cited by the Examiner, "to provide a desirable multi-layered film" is inadequate. Kiriazis et al. already describes a desirable multi-layered film by itself. The Examiner has not identified any reason for why a person of skill in the art would find the Kiriazis multi-layer film as needing improvement. Nor has the Examiner identified a motivation (if indeed the person of skill in the art was motivated to improve the Kiriazis multi-layer laminate) for why a person of ordinary skill in the art would look to the coatings of Lahrman et al. -- which teaches standard coating for direct application to an end-product for suggestions. Nor has the Examiner identified the motivation for selecting the one specific example (among several in Lahrman) showing the particular layer thicknesses and thickness ratios. There is only one plausible motivation for selecting and combining the references as in that manner, and that is the hindsight provided by the Applicants' invention itself. The Applicants' invention was not available to the person of ordinary skill in the art, and therefore the selective combination of features amounts to improper hindsight reconstruction.

Second, in addition to the fact that the references are not properly combinable, Applicants submit that the combination does not suggest the steps of applying the first and second layers with the recited thicknesses of claim 1. As discussed in Applicants previous response, Lahrman's Example 5 (and comparison test A) cited by the Examiner teaches coating a sheet of

metal first with a primer of 20 μm and then with a second layer of filler material having a thickness of 35 μm . A third layer of lacquer having a thickness of 10 μm is applied to the second layer. Column 10, lines 4-23. Thus, Lahrman et al. teaches applying a first layer to a support material having a thickness that is less than the second layer -- and not 3 to 5 times greater than the second layer as recited in claim 1.

The Examiner has responded by interpreting the "support material" of claim 1 to be the cathodically electrocoated primer of Lahrman. Under that interpretation, according to the Examiner, the Lahrman second layer of filler material becomes the "first layer" of claim 1 and the Lahrman third layer of lacquer becomes the "second layer" of claim 1. While this may be a creative way of interpreting the features of claim 1 in view of Lahrman it is an unreasonable one, given the language of the claim itself as read in light of Applicants disclosure. The 20 micron thick cathodically electrocoated primer of Lahrman cannot reasonably be deemed to be a support material as that term is properly understood in claim 1. On the contrary, the Lahrman primer can only be reasonably deemed to be the first layer applied to the metal support material.

Moreover, the Examiner's interpretation further highlights the impropriety of combining the teachings of Lahrman with Kiriazis in the manner suggested. The Examiner explains that Kiriazis describes a thermoplastic polyurethane film applied to a metal sheet and that the thermoplastic primer film is later removed from the metal sheet to become the support material. "Therefore, Lahrman discloses applying onto the support material a filler composition to a thickness of 35 microns within the range as claimed and a second coating thickness of 10 microns." Final Office Action, pages 3-4.

The Examiner thus appears to be viewing the thin electrocoated primer layer of Lahrman as a support material that is interchangeable with the 60 micron thick removable thermoplastic polyurethane film of Kiriazis. Unlike the adhesive polyurethane film in Kiriazis, which is specifically designed to be removable from the metal sheet, the Lahrman electrocoated primer is not intended to be removed from the metal sheet, and could not be removed with the other layers intact. The Examiner is improperly mixing and matching features from Lahrman and Kiriazis in a strained manner without providing any plausible motivation for doing so. The teaching of Lahrman (pre-coating a cathodically electrocoated primer with a commercial filler - Lahrman column 10, lines 4-6) cannot simply be transferred to the laminate of Kiriazis to replace the step of coating a removable thermoplastic polyurethane film with a commercial white

pigmented top coat. Column 4, lines 23-36. There is no motivation for making that specific replacement. Nor is there any evidence that the commercial filler of Lahrman, which is adapted to permanently adhere to the electroplated primer, would adequately adhere to the smooth thermoplastic film of Kiriazis or that it would have sufficient ductility to survive being removed from the metal carrier and reapplied to an automobile panel without damage, a requirement of the laminate layers in Kiriazis. Thus, without the benefit of hindsight provided by the Applicant's claimed invention, there is no motivation for selecting specific layers from a conventional paint coating process as taught in Lahrman and substituting them for the layers described in a completely different type of coating process.

In addition, Kiriazis et al. teaches away from the recited thickness ratios. In each of the examples, the pigmented layer (beneath the transparent layer) is taught to have a thickness of 20 μm . Reference is also made to an optional first layer. Claim 1 recites that the first layer has a thickness of 10-50 μm and further that the first layer has a thickness 3 to 5 times greater than the second layer. Accordingly, claim 1 is limited to a second layer with a thickness not greater than 16.7 μm (50 μm /3). The Kiriazis reference specifically teaches just the opposite: that the second layer is greater than 16.7 μm .

With regard to Ellison, the third reference relied on by the Examiner for the feature that the first layer is roll coated while the second layer is applied by spraying, there are additional problems with the rejections of claims 1 and 3-11.

Ellison describes rolling a transparent top layer onto a suitable carrier, such as a flexible steel band, and then spraying the clear top layer with a liquid pigmented polymer. Afterwards the coated polymer is removed from the carrier and an adhesive layer is provided to the sprayed-on polymer layer. See column 5, lines 49 to column 6, line 17, and Fig. 3.

Ellison thus described creating a laminate in precisely the reverse order as that described in Kiriazis. It is not clear how the Examiner thinks Ellison provides any suggestion for the claimed invention, or in what manner the teachings of Ellison be combined with Kiriazis and Lahrman. If anything, Ellison would appear to teach that the transparent top layer or second layer be roll coated and that the innermost layer be spray coated. Just the opposite as is recited in claim 1.

Claim 10 specifically recites that the first layer includes a pigmented paint. Thus, with

respect to claim 11, the teaching of Ellison that the pigmented layer is sprayed on, wherein the first pigmented paint layer of claim 11 is specifically recited as being applied by a process other than spraying.

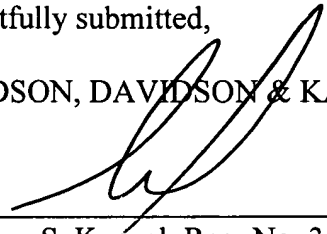
For at least the foregoing reasons, therefore, withdrawal of the rejections under 35 U.S.C. is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is now in condition for allowance.

Respectfully submitted,

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